

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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SUBJECT Continuous Emission Monitor (CEM) Excess Emission Data Handling and Review

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TO Michael J. Sanderson
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Thru: Peter J. Culver
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The following describes a method to handle the submittal of source self-monitoring emission data. The quarterly excess emission reports (EERs) provide an agency opportunity to assess past, current and future emissions of sources with CEMs. In addition, the handling, storage and subsequent retrieval of the data provides a resource management device for identifying emission trends and resource allocation.

All the mechanisms and resources referred to below are presently available but lack guidance. However, on your concurrence with the processes of Appendixes A and B, the section will have clear guidance on incorporating the EER data into the section's current functions.

1. Purpose. This memorandum describes the review, use, and routing procedures, of Appendixes A and B, for processing EERs submitted to the Air Compliance Workgroup (ACW). These procedures are established to insure:

- a. the EERs are handled, analyzed, and reviewed in a consistent manner;
- b. the results of those analyses and the recommendations for further enforcement actions, Appendix B, are made by the appropriate people; and
- c. the ACW maximize the use of the information from the CEM reports.

2. Scope and Applicability. These procedures apply to all EERs received by ACW as a result of reporting requirements in NSPS, PSD, Section 114 requests, SIP regulations, and Consent Decrees. This system for processing EERs should be used in conjunction with ACW's use of the CEM subset of CDS for inputting and tracking the results of EER(s) review.

3. Policy. The ACW shall evaluate, verify and insure the continuous compliance status of stationary sources by incorporating the review and analysis of EERs and related monitor data into the overall regional air compliance program.

Attachments.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REJECT Excess Emission Report Data Handling and Review

FROM Tony Wayne
Environmental Engineer, CEM Coordinator

TO Air Compliance Staff - AWCS

As you know the Continuous Emission Monitoring (CEM) program in Region VII has been evolving. The Region and States have taken an active role in defining strategy for CEM use, and its role in continuous source emission monitoring.

The object of this memorandum is to provide a guide to one area of continuous compliance which has been neglected, the use of Excess Emission Reports. It should be our effort to maintain a consistent standard of review of reported quarterly excess emission reports (EERs) within the Regional Office. To that end I have put together an EER data review and handling procedure for our workgroup. The States are beginning their process of developing EER review and interpretation guidelines which will incorporate their specific program objectives. Except for some modifications in State follow-up recommendations, the state's are mirroring the procedures here and should have similiar procedures in place (except Kansas) by the end of CY-83.

I request that we begin with the suggested process and then at some future date evaluate whether we need to make changes.

Further background on the CEM program for R7 can be found in the notebook marked "Region VII CEM Program". It covers strategy, policy regarding NSPS, PSD and consent decrees, CEM subset, Formats for EERs, Data Handling and EER review, and soon ENSV/EMCM Audit SOPs.

APPENDIX A
CONTINUOUS EMISSION MONITORING
DATA HANDLING AND REVIEW
PROCEDURE

The following procedures will insure that all Excess Emission Reports (EERs) are handled, reviewed and results inputted into the CEM subset in a consistent manner:

PRELIMINARY REVIEW: Environmental Protection Assistant(s) (para-professional(s)).

- (a) All EERs received should be logged in by the para-professional. This should be accomplished by insuring that the cover letter and EER have a EPA/AWCS receipt date stamped on the the documents.
- (b) The para-professional should note the timeliness of the report and any major problems or concerns identified in the EERs cover letter.
- (c) The above information should be entered on the 60 and 70 cards of the CDS/CEM data entry form.
- (d) The para-professional should note any changes in the monitor, or point, status identified in the cover letter and make the appropriate change to the 51 and 52 card of the CDS/CEM data entry form.
- (e) The para-professional should note the general adequacy of the report. The reviewer should note any deficiencies in the report format. Region VII ACW does not require a prescribed standard format for EERs; however, it does require as a matter of policy that any EER meet the requirements of Section 40 C.F.R. 60.7(c) in that individual and/or continuous periods of excess emissions be identified by event(s). The EER should be considered inadequate if it does not identify the magnitude and the extent of each excess emission event and some statement of cause of each excess emission event.
- (f) The para-professional should then route all EERs and associated data entry forms to the appropriate State Coordinator for their review.
- (g) The para-professional should notify the reporting source of the report's receipt by the Agency.

STATE COORDINATOR REVIEW:

The state coordinator should review and analyze each EER for the following items and summarize such review in a form suitable for entry into the CDS/CEM subset, or by filling in the appropriate data entry blocks for Cards 71 and 80 of the CDS/CEM data entry form:

- a) The reviewer should complete a separate analysis of each emission point and pollutant covered in the report. This refers to reports which include both opacity and gaseous pollutant reporting.
- b) The reviewer should classify each event of excess opacity or gaseous emission into the CEM subset categories by the reported cause. The number of periods (minutes or hours) reported for each category is summed for the day, and then the total number of periods (minutes or hours) of reported excess emissions for that date is determined from the sum of the four categories. Important comments on the excess emissions for that day should be recorded. A further summation per category for the reporting period should be made for CEM subset entry. A separate summary is made for the amount of time that the monitoring system is not functioning.
- c) The reviewer should determine the percent of time that the source was operating and reporting excess opacity (or gaseous) emissions. This can be done manually during the initial review or automatically after entry has been made to the CEM subset. Note that diurnal cycling processes and batch processes should be considered continuous.
- d) The reviewer should determine the percent of time that the CEM was not operating during the reporting period. This can be done during the initial review or after entry of information has been made to the CEM subset.
- e) The state coordinator should return the EERs, all summary information, and/or completed CDS/CEM data entry form to the para-professional for update of the CDS and CEM subset systems and filing.
- f) The state coordinator should then proceed to examine the data compilation and recommend a course of action in accordance with selected recommendations under Appendix B.

APPENDIX B
EXCESS EMISSION REPORT
REVIEW FOLLOW-UP
GUIDELINE

The state coordinator and para-professional have completed the initial compilations of Appendix A. The state coordinator is now ready to examine the information and recommend a course of action. The following guidelines are provided for general direction in making a recommendation. However, good judgment must be exercised. If there is a reason for proceeding in a manner different from that suggested, the action should be recommended in writing. Items (ii) through (viii) should not be construed to abrogate our commitments to coordinate our findings with those state and local agencies which have the delegated program responsibility and/or primary enforcement. Coordination should be carried out in accordance with the SEA commitments and specifically, the Enforcement Protocol. The general guidelines are:

- (i) No further Actions (NFA) if the percentage for excess occurrences of opacity or gaseous emissions and monitor downtime, expressed as excess or monitor downtime to total operating period, is below two percent, the distribution of excess emission is normal over time and cause, and/or problems causing excess emissions have been verified as corrected.
- (ii) Visible Emission Observations (VEOs) be initiated, if the percentage for occurrences of excess opacity is approximately five percent, of total operating periods, the distribution of excess emissions is concentrated in categories "unknown" and "malfunctions", the emission problem is uncorrected and excess emissions occur generally during daylight hours.
- (iii) LIDAR observations be initiated if conditions in (ii) are met but excess emissions occur during nighttime hours.
- (iv) Order to Test be initiated, if the percentage of excess emissions occurrences (gaseous) is approximately 10 percent of the total operating time and the distribution of these excess emissions is concentrated in categories "unknown" and "malfunction".
- (v) Check next quarter (CNQ) if informal communication/interaction with source operator or state/local agency can rectify an excess emission or monitor problem indentified in the EER. The following EER should be reviewed carefully for any informal enforcement follow-up.
- (vi) Plant Inspection, if the percentage of excess emissions occurrences (opacity or gaseous) is greater than five percent and/or monitor downtime occurrences exceeds five percent and there is no cause for excess emission or monitor downtime.

- (vii) Performance Audits, if EER has high percentage of monitor downtime (>five percent) and/or reported excess emissions attributed to inaccuracy, frequent maintenance, poor calibration, and/or excessive drift of the monitor exceed five percent of the operating quarter, the reviewer should request that the Environmental Services, State Agency or Contractors conduct a performance audit in the case of opacity, or order the source to conduct a relative accuracy test in the case of gaseous monitor.
- (viii) Notice of Violation (NOV), if the source is reporting pursuant to a NSPS, SIP or other requirement and the EER shows: percentage of excess emissions occurrence exceeds ten percent, monitor availability is 99 percent or greater and/or the monitor had been audited within one year and reported exceedances are grouped in "malfunction" and/or "unknown" categories.

It is the State Coordinator's responsibility to initiate and complete the required steps concerning the recommendations of items (i) through (viii).

The reviewer should be aware that EERs for opacity are generally in minutes. Gaseous exceedances will be classified into the number of three-hour average exceedances and summed for the quarter. Note that there are 24 three-hour averages within one day of operation.

PROCESS FLOW CHART

